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# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

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(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 1/W32243WO	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/GB99/00987	International filing date (day/month/year) 30/03/1999	Priority date (day/month/year) 31/03/1998
International Patent Classification (IPC) or national classification and IPC H01Q1/22		
Applicant VODAFONE LIMITED et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 4 sheets, including this cover sheet.

- ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 5 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand  25/10/1999	Date of completion of this report  21.06.2000
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  Saur, E  Telephone No. +49 89 2399 2741 

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/GB99/00987

**I. Basis of the report**

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

**Description, pages:**

2-10 as originally filed

1,1a as received on 06/05/2000 with letter of 04/05/2000

**Claims, No.:**

1-17 as received on 06/05/2000 with letter of 04/05/2000

**Drawings, sheets:**

1-4 as originally filed

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☒ the claims, Nos.: 18,19  
☐ the drawings, sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/GB99/00987

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes:	Claims	1-17
	No:	Claims	
Inventive step (IS)	Yes:	Claims	1-17
	No:	Claims	
Industrial applicability (IA)	Yes:	Claims	1-17
	No:	Claims	

**2. Citations and explanations**

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/GB99/00987

**ITEM V**

**Reasoned statement**

1. The following documents (D) are referred to in this report;

D1: EP-A-0 710 999 (NIPPON ELECTRIC CO) 8 May 1996 (1996-05-08)

D2: WO 98 10529 A (ZIPOLI CLAUDIO; TELOS TELECOMMUNICATIONS  
S P A (IT)) 12 March 1998 (1998-03-12)

2. The closest prior art D1 discloses all features of the preambles of independent claims 1 and 6. D2 also discloses the features of the preamble of claim 1.

However, the feature of the characterising portions of claims 1 and 6, that circuitry of a base station and circuitry of street furniture is common, cannot be derived from the prior art.

It is therefore considered that the claims meet the requirements of Art. 33 (2) - (4) PCT.



The  
**Patent  
Office**

VODAFONE LIMITED  
% Mathisen, Macara & Co  
The Coach House  
6-8 Swakeleys Road Ickenham  
UXBRIDGE  
UB10 8BZ

**The Patent Office**

Cardiff Road  
Newport  
Gwent NP9 1RH

**Examiner:** 01633 814764  
**Switchboard:** 01633 814000  
**Fax:** 01633 814444

**Your Reference:** P32176GB  
**Application No:** GB 9806924.8

1 July 1998

Dear Sirs

**Patents Act 1977: Search Report under Section 17(5)**

I enclose two copies of my search report and two copies of the citations.

**Publication**

I estimate that, provided you have met all formal requirements, preparations for publication of your application will be completed soon after **24 August 1999**. You will then receive a letter informing you of completion and telling you the publication number and date of publication.

**Amendment/withdrawal**

If you wish to file amended claims for inclusion with the published application, or to withdraw the application to prevent publication, you must do so before the preparations for publication are completed. **No reminder will be issued.** If you write to the Office less than 3 weeks before the above completion date, please mark your letter prominently: **"URGENT - PUBLICATION IMMINENT"**.

Yours faithfully

J. A. Watt  
Examiner



Application No: GB 9806924.8  
Claims searched: 1 - 28

Examiner: J. A. Watt  
Date of search: 30 June 1998

**Patents Act 1977**  
**Search Report under Section 17**

**Databases searched:**

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:  
UK Cl (Ed.P): H1Q (QKE, QKN); H4L (LECX)  
Int Cl (Ed.6): H01Q 1/12, 1/22, 1/44  
Other: Online: WPI

**Documents considered to be relevant:**

Category	Identity of document and relevant passage	Relevant to claims
X	EP 0710999 A1 (NEC) see figs.1 - 6 and col.2, lines 27 - 43 and col.4, lines 21 - 27	1 - 3 and 13 - 15 at least
X	US 5641141 (AT&T) see figs.1 - 11D and col.1, lines 11 - 25 and col.2, lines 40 - 63	1 and 13 at least
X	Patent Abstracts of Japan, vol.18, no.280 (E-1555), JP 06053894 A (NIPPON STEEL)	1 and 13 at least
X	Patent Abstracts of Japan, vol.17, no.6 (E-1302), JP 04238424 A (NIPPON TELEGR & TELEPH)	1 and 13 at least

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.



The  
Patent  
Office



INVESTOR IN PEOPLE

VODAFONE LIMITED  
% Mathisen, Macara & Co  
The Coach House  
6-8 Swakeleys Road Ickenham  
UXBRIDGE  
UB10 8BZ

**The Patent Office**  
Concept House  
Cardiff Road  
Newport  
South Wales  
NP9 1RH

**Examiner:** 01633 814764  
**Switchboard:** 01633 814000  
**Fax:** 01633 814444

**Your Reference:** 1/cw/p32243GB  
**Application No:** GB 9824100.3

16 April 1999

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Technology Center 2600

Dear Sirs

**Patents Act 1977: Search and Examination Report under Sections 17 and 18(3)**

**Latest date for reply:** 18 October 1999

In response to the further Patents Form 9/77 filed on 1 April 1999, I enclose two copies of my report and two copies of the citation.

By the above date you should either file amendments to meet the objections in the report or make observations on them. If you do not, the application may be refused.

Yours faithfully

J. A. Watt  
Examiner



Your ref: 1/cw/p32243GB  
Application No: GB 9824100.3  
Applicant: VODAFONE LIMITED

Examiner: J. A. Watt  
Tel: 01633 814764  
Date of report: 16 April 1999

Latest date for reply: 18 October 1999

Page 1/1

## Patents Act 1977

### Search and Examination Report under Sections 17 & 18(3)

#### Novelty

1. The invention as defined in claims 1 - 3, 6, 7 and 14 - 16 is not new because it has already been disclosed in the following document:

- ▶ Patent Abstracts of Japan, vol.18, no.280 (E-1555), JP 06053894 A (NIPPON STEEL).

#### Inventive step

2. The invention as defined in claims 9 - 11, 13 and 18 is obvious in view of what has already been disclosed in the following documents:

- ▶ US 5641141 (AT&T) see fig.1;
- ▶ US 5625369 (HAZELTINE) see col.2, line 51 to col.3, line 6;
- ▶ US 5375353 (J M HULSE) see figs.1 and 2; and
- ▶ Patent Abstracts of Japan, vol.18, no.280 (E-1555), JP 06053894 A (NIPPON STEEL).

US 5641141, US 5625369 and US 5375353 all disclose base station antenna and sign combinations. US 5641141 is considered to provide a form of traffic sign which may be considered in combination with the street lamp arrangement disclosed in JP 06053894 A to render the required features of claim 11 obvious. US 5625369 and US 5375353 may be considered to relate to advertising signs and as a result of their disclosures there is considered to be no clear inventive step involved in claims 9 and 10. Further the mere introduction of cooling or ventilation means into an enclosure for circuitry, as required in claims 13 and 18, is taken to be common practice and does not clearly involve an inventive step.

#### Conflict and clarity

3. Claim 12 conflicts with claim 1 in that there is no clear circuitry for use in the principle function of the drain pipe or simulated drain pipe required by claim 12.

4. The drain pipe or simulated drain pipe required in claim 12 is not truly considered to come within the term "street furniture". Clarification of the intended scope of the term "street furniture" may be necessary.

5. It appears that the word 'means' has been accidentally omitted from between the words "including" and "for", used in the first line of claim 13.





Application No: GB 9824100.3  
Claims searched: 1 - 26

Examiner: J. A. Watt  
Date of search: 15 April 1999

**Patents Act 1977**  
**Further Search Report under Section 17**

**Databases searched:**

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:  
UK Cl (Ed.Q): H1Q (QKE, QKN); H4L (LECX)  
Int Cl (Ed.6): H01Q 1/12, 1/22, 1/44  
Other: Online: WPI

**Documents considered to be relevant:**

Category	Identity of document and relevant passage	Relevant to claims
Y	US 5641141 (AT&T) see fig.1	11 at least
Y	US 5625369 (HAZELTINE) see col.2, line 51 to col.3, line 6	9 & 10 at least
Y	US 5375353 (J M HULSE) see figs.1 & 2	9 & 10 at least
X, Y	Patent Abstracts of Japan, vol.18, no.280 (E-1555), JP 06053894 A (NIPPON STEEL)	X: 1 - 3, 6, 7 and 14 - 16 Y: 9 - 11 at least

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.



Application No: GB 9810919.2  
Claims searched: 9-13

Examiner: David McWilliams  
Date of search: 10 November 1998

**Patents Act 1977**  
**Further Search Report under Section 17**

**Databases searched:**

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:	
UK Cl (Ed.P): A4B: B9, B1-5; A4L: LPBE; E1D: DF145; E2F:FCA	
Int Cl (Ed.6): A47B	
Other:	

**Documents considered to be relevant:**

Category	Identity of document and relevant passage	Relevant to claims
X	US5683064 COPELAND etal (Figs. 19-21)	9,11,12

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.



Application No: GB 9810919.2  
Claims searched: 1-8

Examiner: David McWilliams  
Date of search: 21 September 1998

**Patents Act 1977**  
**Search Report under Section 17**

**Databases searched:**

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK CI (Ed.P): E1D: DGS, DCB, DF194

Int CI (Ed.6): E04H

Other:

**Documents considered to be relevant:**

Category	Identity of document and relevant passage	Relevant to claims
X	US 5687537 NOBLE (Figs. 1+4)	1,2,5
X	EP 0825313 SCHOONEBEEK (Figs. 1-3)	1,2

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

## PATENT COOPERATION TREATY

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## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents  
United States Patent and Trademark  
Office  
Box PCT  
Washington, D.C. 20231  
ÉTATS-UNIS D'AMÉRIQUE

in its capacity as elected Office

<b>Date of mailing (day/month/year)</b> 22 November 1999 (22.11.99)	
<b>International application No.</b> PCT/GB99/00987	<b>Applicant's or agent's file reference</b> 1/W32243WO
<b>International filing date (day/month/year)</b> 30 March 1999 (30.03.99)	<b>Priority date (day/month/year)</b> 31 March 1998 (31.03.98)
<b>Applicant</b> O'NEILL, Gerard et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:  
25 October 1999 (25.10.99)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was  
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<p>The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No.: (41-22) 740.14.35</p>	<p>Authorized officer C. Carrié</p> <p>Telephone No.: (41-22) 338.83.38</p>
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**REPLACED BY  
ART 34 AMDT**CELLULAR TELEPHONE ARRANGEMENTS

The invention relates to cellular telephone arrangements. Cellular telephone arrangements embodying the invention, and to be described in more detail below by way of example only, are intended to provide base station and antenna arrangements for use mainly in urban environments, but may be used in other environments.

According to the invention, there is provided an item of street furniture, additionally incorporating or carrying an antenna for the base station of a cellular telephone system in combination with an enclosure for containing the circuitry of the base station, the enclosure being the same enclosure which includes circuitry for use in the principal function of the item of street furniture.

According to the invention, there is also provided an enclosure for the circuitry of a base station of a cellular telephone system which receives signals from and supplies signals to an antenna of the system, the enclosure including further circuitry for controlling an item of street furniture.

Cellular telephone base stations and antenna arrangements embodying the invention will now be described, by way of example only, with reference to the accompanying diagrammatic drawings in which:

CLAIMS

1. An item of street furniture (5,6,20,42), characterised by additionally incorporating or carrying an antenna (46) for the base station (44) of a cellular telephone system, in combination with an enclosure (14,24,44) for containing the circuitry (28,30,31) of the base station (44), the enclosure (14,24,44) being the same enclosure which includes circuitry (29) for use in the principal function of the item of street furniture (5,6,20,42).
2. An item of street furniture according to claim 1, characterised in that at least part (30,31) of the circuitry for the base station (44) is common with part (30,31) of the circuitry for the principal function of the item of street furniture (5,6,20,42).
3. An item of street furniture according to claim 28, characterised in that the common part of the circuitry includes power supply circuitry (30).
4. An item of street furniture according to claim 2 or 3, characterised in that the common part of the circuitry includes circuitry (31) for carrying signals to or from the base station circuitry (28) and the circuit (29) for the principal function of the item of street furniture (5,6,20,42).
5. An item of street furniture according to any preceding claim, characterised in that it is associated with but physically separate from the enclosure (14).

6. An item of street furniture according to any one of claims 1 to 4, characterised in that it is physically combined with the enclosure (24).
7. An item of street furniture according to any preceding claim, characterised in that it is in the form of a mast (5) carrying lighting means.
8. An item of street furniture according to any one of claims 1 to 6, characterised in that it is in the form of a mast (20) carrying a closed circuit television camera (22).
9. An item of street furniture according to any one of claims 1 to 6, characterised in that it comprises a sign (42).
10. An item of street furniture according to claim 9, characterised in that the sign (42) is a shop sign or an advertising sign.
11. An item of street furniture according to claim 9, characterised in that the sign is a traffic sign.
12. An item of street furniture according to any one of claims 1 to 6, characterised in that it is a drain pipe or simulated drain pipe (56) for mounting on an external surface of a building and the antenna (54) is mounted within the pipe.

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